

**SUPERVISORY MICROBIOLOGIST (MOLECULAR BIOLOGIST-VIROLOGIST)**  
**MS-403-13**

**INTRODUCTION**

This position is located in the Office of the Deputy Mayor for Public Safety and Justice (ODMPSJ) in the Department of Forensic Sciences (DFS). The mission of the DFS is to provide high-quality, timely, accurate, and reliable forensic science services using best practices and best available technology, focusing on unbiased science and transparency, to enhance public safety and health.

Serves as a technical supervisor for Molecular Diagnostics Unit which includes supervising the Molecular Diagnostics and a Virology Laboratory, which provides rapid diagnosis of microbial and viral pathogens such as West Nile virus, Norovirus, typing and sub-typing influenza and identification of toxins and other microbial pathogens etiologist agents of community and institutionally acquired infections and communicable diseases.

This service supports the monitoring and prevention efforts of the department and it is a critical part of the Homeland Security and Emergency Management Agency's response to incidents of bioterrorism agents in the District of Columbia.

**POSITION CONTROLS**

Works under the general direction of the Director of Public Health Laboratory, who defines overall objectives to be achieved, coordinates resources, and relies on the incumbent's expertise when coordinating, and accomplishing program objectives. The incumbent independently develops and provides advisory opinions and recommendations on major scientific and policy issues utilizing personal training, experience and competences; also exercises judgment, decision making, initiatives and actions in the administration of all technical, organizational and scientific phases. Recommendations are accepted as professional, scientific and technically authoritative in molecular biology and virology.

Work is reviewed for conformance to standards, guidelines, feasibility, and effectiveness in meeting objectives, deadlines, expected results, and maintenance of regulatory standards.

Guides consist of general policies, procedures, rules and regulations of D.C. and Federal Governments and other agencies affiliated with the Department of Forensic Science requirements and restrictions set forth in pertinent legislation. Guidelines also consist of American Public Health Association Standard Diagnostic Methods, the Manual of Clinical Laboratory Microbiology (American Society of Microbiology). Specific assignments are often scarce, not always applicable, which require considerable interpretation and/or adaptation for application to issues and problems.

Judgment, initiative, and resourcefulness in deviating from established methods to deal with research trends and patterns; propose new policies and practices; develop new methods and criteria; and/or

modify, adapt, and/or refine broader guidelines to resolve specific complex and/or intricate issues and problems.

#### **DUTIES AND RESPONSIBILITIES**

Responsible for planning, developing, implementing evaluating and coordinating goals, objectives and priorities of highly professional and specialized technical services and activities of Molecular Diagnostics; and responsible for programs which provide laboratory support for the D.C. Healthcare System by the detection of infectious microbiological agents in specimens from humans, animals, the environment and foodstuffs in retail and wholesale markets of the District of Columbia.

Works in conjunction with the Laboratory Director, plans and formulates objectives, priorities and methods of operation for carrying out long-term program goals to reduce or eliminate infections or diseases caused by highly pathogenic microbial agents or by opportunistic microbial pathogens. Designs plans, study protocols, and scientific procedures by which these objectives can be obtained and writes standard operating procedures.

Designs systems for the on-going review and maintenance of existing molecular diagnostics laboratory protocols and develops modifications of these protocols when necessary and/or appropriate on the basis of the on-going evaluations; and oversees the evaluation program including on-going modifications to reflect changes in the organization's objectives, diagnostic laboratory technology and public health goals.

Utilizes findings of specialized studies, new analytical developments, and modified processes to resolve novel, obscure, or highly controversial problems that affect the program area.

Directs maintenance of all necessary laboratory records in a manner assuring timely retrieval, full coverage of examinations, etc. consistent with requirements of full documentation needed to respond to Content Management System (CMS), Medicare and/or submitting physician inquiry within Health Insurance Portability and Accountability Act (HIPPA) compliance rules.

Collaborates in the epidemiological investigations of infectious diseases in the District and its environs, and designs evaluation methodologies for project studies related to these infections. Formulates and develops epidemiological and statistical methods for the analyses of microbial pathogen trends in morbidity and mortality in the District population as part of public health surveillance programs and prepares summary information on selected communicable diseases.

Communicates laboratory findings and other data to scientific and health care communities through seminars, professional meetings, scientific publications and direct contact with health care professionals; and supervises the participation of the organization in a nationally recognized proficiency testing program.

Oversees the implementation and analysis of epidemiological evaluations conducted by subordinates in a way which ensures the technical merit of results and of recommendation based on these valuations.



Develops liaisons with professional organizations and other federal and state agencies to ensure that laboratory performance evaluation activities are consistent with national public health needs; and develops and promotes strong, productive laboratory training alliances with academic institutions in the District. Also, serves as a critical interface between the organization and a variety of external public, private and professional organizations; and on collaborative projects with State health department, Federal agency and non-governmental agencies and organizations.

Represents the department on various intra and interagency committees and task forces concerned with public health issues or policies involving the control and/or prevention of infectious diseases in the District of Columbia's population.

Appears in court to testify as an expert witness on individual findings of tests or on behalf of a subordinate staff employee.

Provides the full range of supervisory services, as required to manage and direct the work efforts of subordinate staff and activities of assigned operations. Develops quantitative and qualitative measures for evaluating the work performance of staff. Supervises and assigns duties and responsibilities; formulates overall plans for resources; approves and disapproves leave requests; recommends job selections, promotions, incentive recognition and corrective or adverse actions; establishes work standards; and identifies developmental and training needs.

#### **OTHER SIGNIFICANT FACTS**

Mastery of, and skill in applying advanced theories, principles, concepts, practices, standards, and methods of microbiological science, virology, public health, and disease prevention.

Mastery of complex diagnostic microbiology and molecular biology procedures, safety, and quality controls; and the ability to keep abreast of best practices in virology through on-going professional development activities.

Expertise in using various types of highly complex equipment (e.g., thermo cyclers, DNA sequences, centrifuges, microscopes, bio-safety cabinets) in a public health laboratory setting and in reading and interpreting complex documents, test results and publications; and expert knowledge of public safety and security.

Ability to work well both independently and as part of a synergistic professional team in a multi-cultural workplace and interpersonal skills and ability to work effectively with a diverse staff, external agencies, and the public.

Excellent oral and written communications skills sufficient to prepare and present pertinent information and research involving complex workforce development policies and initiatives, and represent the agency; and knowledge of and skill in communication and public relations techniques sufficient to effectively represent the agency at conferences, meetings and consultations with agency managers, employee groups, and special interest groups concerning program objectives and issues.

Ability to supervise and skill to lead a subordinate staff.

Demonstrated skill and ability to use a PC and software packages (e.g., Microsoft Word, Excel, Access and Power Point, etc.) and software applicable to various reporting systems, particularly laboratory information systems (LIS), inventory control, and sequence analysis software.

**SPECIAL REQUIREMENTS:**

This position's duty station will be housed within the Consolidated Forensic Laboratory (CFL) which is a protection-sensitive facility. As such, incumbents of this position shall be subject to criminal background checks, background investigations, and mandatory drug and alcohol testing, as applicable.

The nature of the DFS mission necessarily involves the potential risks associated with biological or chemical hazards, including morgue functions. Although contact with these functions is intended to be minimal, the risks are nevertheless possible; training to recognize, address, and mitigate these risks is required as is dealing with potentially personally difficult topics, such as crime, death, and disease.